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A Study of Solid-State Track Response to Charge Particles from NOVA Implosions. T. W. PHILLIPS, and M. D. CABLE Lawrence Livermore National Laboratory, Livermore, CA. D. HICKS, C. K. LI, R. D. PETRASSO, and F. SEGUIN, Plasma Fusion Center. M.I.T. Cambridge, MA.

We have exposed CR-39 track recording material to a number of NOVA implosions. The implosion flux passed through an array of ranging filters to help identify the incident particle and establish its energy. The etching procedure was calibrated by including a piece of track recorder exposed to DD protons from a small accelerator. For the same shots, we quatititively compare the DD neutron yield with the yield determined from the track. Results of this comparison will be presented. In DT implosions tracks produced by neutron interactions in the track recorder prevent observation of charged particles tracks that are produced by the processes of knockon, secondary or tertiary fusion.

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